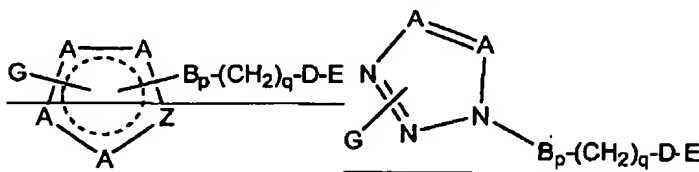


Amendment  
U.S. Serial No.: 10/671,326  
Page 2 of 53

The following list of claims replaces all prior versions and lists of claims in the application:

**Listing of Claims:**

1. (Currently amended) A compound having the formula:



or a pharmaceutically acceptable salt, ester, or prodrug thereof,  
wherein

~~A<sub>2</sub> at each occurrence, independently is carbon, carbonyl, or nitrogen, provided at least one A is carbon;~~

~~Z is carbon, nitrogen, oxygen, or sulfur;~~

B is selected from the group consisting of O, NR<sup>2</sup>, S(O)<sub>r</sub>, C=O, C=S, and C=NOR<sup>3</sup>,

p is 0 or 1;

q, at each occurrence, independently is 0 or 1;

r is 0, 1, or 2;

R<sup>2</sup>, at each occurrence, independently is selected from the group consisting of:

a) hydrogen, b) S(O)<sub>r</sub>R<sup>4</sup>, c) formyl, d) C<sub>1-8</sub> alkyl, e) C<sub>2-8</sub> alkenyl, f) C<sub>2-8</sub> alkynyl, g) C<sub>1-8</sub> alkoxy, h) C<sub>1-8</sub> alkylthio, i) C<sub>1-8</sub> acyl, j) saturated, unsaturated, or aromatic C<sub>3-8</sub> carbocycle, and k) saturated, unsaturated, or aromatic 5-10 membered heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of d) – k) optionally is substituted with one or more moieties selected from the group consisting of carbonyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl, F, Cl, Br, I, CN,

Amendment  
U.S. Serial No.: 10/671,326  
Page 3 of 53

$\text{NO}_2$ ,  $-\text{NR}^3\text{R}^3$ ,  $-\text{OR}^3$ ,  $-\text{S}(\text{O})\text{R}^4$ ,  $-\text{S}(\text{O})\text{NR}^3\text{R}^3$ ,  $-\text{C}(\text{C})\text{R}^3$ ,  $-\text{C}(\text{O})\text{OR}^3$ ,  
 $-\text{OC}(\text{O})\text{R}^3$ ,  $-\text{C}(\text{O})\text{NR}^3\text{R}^3$ , and  $-\text{OC}(\text{O})\text{NR}^3\text{R}^3$ ;

alternatively, two  $\text{R}^2$  groups, taken together with the atom to which they are bonded, form i) 5-8 membered saturated or unsaturated carbocycle, or ii) 5-8 membered saturated or unsaturated heterocycle containing one or more atoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein i) – ii) optionally is substituted with one or more moieties selected from the group consisting of carbonyl, F, Cl, Br, I, CN,  $\text{NO}_2$ ,  $-\text{NR}^3\text{R}^3$ ,  $-\text{OR}^3$ ,  $-\text{S}(\text{O})\text{R}^4$ ,  $-\text{S}(\text{O})\text{NR}^3\text{R}^3$ ,  $-\text{C}(\text{O})\text{R}^3$ ,  $-\text{C}(\text{O})\text{OR}^3$ ,  $-\text{OC}(\text{O})\text{R}^3$ ,  $-\text{C}(\text{O})\text{NR}^3\text{R}^3$ ,  $-\text{OC}(\text{O})\text{NR}^3\text{R}^3$ ,  $\text{C}_{1-6}$  acyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

$\text{R}^3$ , at each occurrence, independently is selected from the group consisting of:

a) hydrogen, b)  $\text{C}_{1-8}$  alkyl, c)  $\text{C}_{2-8}$  alkenyl, d)  $\text{C}_{2-8}$  alkynyl, e)  $\text{C}_{1-8}$  acyl, f) saturated, unsaturated, or aromatic  $\text{C}_{3-8}$  carbocycle, and g) saturated, unsaturated, or aromatic 5-10 membered heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of b) – h) optionally is substituted with one or more moieties selected from the group consisting of carbonyl, F, Cl, Br, I, CN,  $\text{NO}_2$ ,  $-\text{NR}^6\text{R}^6$ ,  $-\text{OR}^6$ ,  $-\text{S}(\text{O})\text{R}^6$ ,  $-\text{S}(\text{O})\text{NR}^6\text{R}^6$ ,  $-\text{C}(\text{O})\text{R}^6$ ,  $-\text{C}(\text{O})\text{OR}^6$ ,  $-\text{OC}(\text{O})\text{R}^6$ ,  $-\text{C}(\text{O})\text{NR}^6\text{R}^6$ ,  $-\text{OC}(\text{O})\text{NR}^6\text{R}^6$ ,  $\text{C}_{1-6}$  acyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

alternatively, two  $\text{R}^3$  groups, taken together with the atom to which they are bonded, form i) a 5-7 membered saturated or unsaturated carbocycle, or ii) a 5-7 membered saturated or unsaturated heterocycle containing one or more atoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein i) – ii) optionally is substituted with one or more moieties selected from the group consisting of carbonyl, F, Cl, Br, I, CN,  $\text{NO}_2$ ,  $-\text{NR}^6\text{R}^6$ ,  $-\text{OR}^6$ ,  $-\text{S}(\text{O})\text{R}^6$ ,  $-\text{S}(\text{O})\text{NR}^6\text{R}^6$ ,  $-\text{C}(\text{O})\text{R}^6$ ,  $-\text{C}(\text{O})\text{OR}^6$ ,  $-\text{OC}(\text{O})\text{R}^6$ ,

Amendment  
U.S. Serial No.: 10/671,326  
Page 4 of 53

$-C(O)NR^6R^6$ ,  $-OC(O)NR^6R^6$ ,  $C_{1-6}$  acyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

$R^4$  is selected from the group consisting of:

a) hydrogen, b)  $-NR^3R^3$ , c)  $-NR^3OR^3$ , d)  $-NR^3NR^3R^3$  e)  $-NHC(O)R^3$ ,  
f)  $-C(O)NR^3R^3$ , g)  $-N_3$ , h)  $C_{1-8}$  alkyl, i)  $C_{2-8}$  alkenyl, j)  $C_{2-8}$  alkynyl,  
k) saturated, unsaturated, or aromatic  $C_{3-8}$  carbocycle, and l) saturated, unsaturated, or aromatic 5-10 membered heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of h) – l) optionally is substituted with one or more moieties selected from the group consisting of carbonyl, F, Cl, Br, I, CN,  $NO_2$ ,  $-NR^3R^3$ ,  $-OR^3$ ,  $-SR^3$ ,  $-S(O)R^5$ ,  $-S(O)NR^3R^3$ ,  $-C(O)R^3$ ,  $-C(O)OR^3$ ,  $-OC(O)R^3$ ,  $-C(O)NR^3R^3$ ,  $-OC(O)NR^3R^3$ ,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkenyl,  $C_{1-6}$  alkynyl,  $C_{1-6}$  acyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

$R^5$  is selected from the group consisting of:

a) hydrogen, b)  $-NR^3R^3$ , c)  $-NR^3OR^3$ , d)  $-NR^3NR^3R^3$  e)  $-NHC(O)R^3$ ,  
f)  $-C(O)NR^3R^3$ , g)  $-N_3$ , h)  $C_{1-8}$  alkyl, i)  $C_{2-8}$  alkenyl, j)  $C_{2-8}$  alkynyl,  
k) saturated, unsaturated, or aromatic  $C_{3-8}$  carbocycle, and l) saturated, unsaturated, or aromatic 5-10 membered heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

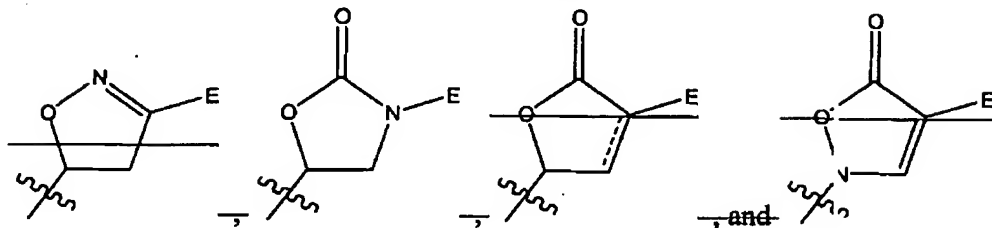
wherein any of h) – l) optionally is substituted with one or more moieties selected from the group consisting of F, Cl, Br, I, CN,  $NO_2$ ,  $-NR^3R^3$ ,  $-OR^3$ ,  $-SR^3$ ,  $-C(O)R^3$ ,  $-C(O)OR^3$ ,  $-OC(O)R^3$ ,  $-C(O)NR^3R^3$ ,  $-OC(O)NR^3R^3$ ,  $C_{1-6}$  alkyl,  $C_{1-6}$  alkenyl,  $C_{1-6}$  alkynyl,  $C_{1-6}$  acyl, aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

$R^6$ , at each occurrence, independently is selected from the group consisting of:

Amendment  
U.S. Serial No.: 10/671,326  
Page 5 of 53

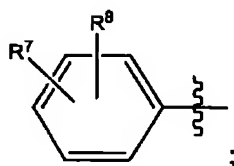
hydrogen, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkenyl, C<sub>1-6</sub> alkynyl, C<sub>1-6</sub> acyl, aryl, substituted aryl, heteroaryl, substituted heteroaryl;  
alternatively, two R<sup>6</sup> groups taken together are -(CH<sub>2</sub>)<sub>s</sub>,  
wherein s is 1, 2, 3, 4, or 5;

D-E is selected from the group consisting of:

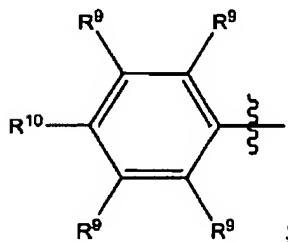


E is selected from the group consisting of:

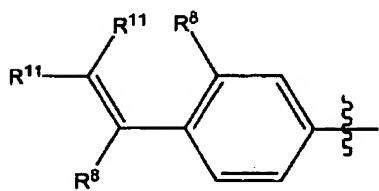
a)



b)



c)



d) 5-10 membered saturated, ~~unsaturated~~, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with one or more R<sup>13</sup> groups; and

Amendment  
U.S. Serial No.: 10/671,326  
Page 6 of 53

e) ~~C<sub>5-10</sub> saturated, unsaturated, or aromatic carbocycle, optically substituted~~  
with one or more R<sup>13</sup> groups;

f) ~~C<sub>1-8</sub> alkyl;~~

g) ~~C<sub>2-8</sub> alkenyl;~~

h) ~~C<sub>3-8</sub> alkynyl;~~

i) ~~C<sub>1-8</sub> alkoxy;~~

j) ~~C<sub>1-8</sub> alkylthio;~~

k) ~~C<sub>1-8</sub> acyl;~~

l) ~~S(O)<sub>r</sub>R<sup>5</sup>; and~~

m) ~~hydrogen;~~

~~wherein any of f) - k) optionally is substituted with~~

~~i) one or more R<sup>13</sup> groups;~~

~~ii) 5-6 membered saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with one or more R<sup>13</sup> groups; or~~

~~iii) C<sub>5-10</sub> saturated, unsaturated, or aromatic carbocycle, optionally substituted with one or more R<sup>13</sup> groups;~~

R<sup>7</sup> is selected from the group consisting of:

a) hydrogen, b) carbonyl, c) formyl, d) F, e) Cl, f) Br, g) I, h) CN, i) NO<sub>2</sub>,  
j) OR<sup>3</sup>, k) -S(O)<sub>r</sub>R<sup>5</sup>, l) -S(O)<sub>i</sub>N=R<sup>2</sup>, m) -C(O)R<sup>2</sup>, n) -C(O)OR<sup>3</sup>, o)  
-OC(O)R<sup>2</sup>, p) -C(O)NR<sup>2</sup>R<sup>2</sup>, q) -OC(O)NR<sup>2</sup>R<sup>2</sup>, r) -C(=NR<sup>12</sup>)R<sup>2</sup>, s) -  
C(R<sup>2</sup>)(R<sup>2</sup>)OR<sup>3</sup>, t) -C(R<sup>2</sup>)(R<sup>2</sup>)OC(O)R<sup>2</sup>, u) -C(R<sup>2</sup>)(OR<sup>3</sup>)(CH<sub>2</sub>)<sub>n</sub>NR<sup>2</sup>R<sup>2</sup>, v)  
-NR<sup>2</sup>R<sup>2</sup>, w) -NR<sup>2</sup>OR<sup>3</sup>, x) -N(R<sup>2</sup>)C(O)R<sup>2</sup>, y) -N(R<sup>2</sup>)C(O)OR<sup>3</sup>, z)  
-N(R<sup>2</sup>)C(O)NR<sup>2</sup>R<sup>2</sup>, aa) -N(R<sup>2</sup>)S(O)<sub>r</sub>R<sup>5</sup>, bb) -C(OR<sup>6</sup>)(OR<sup>6</sup>)R<sup>2</sup>,  
cc) -C(R<sup>2</sup>)(R<sup>3</sup>)NR<sup>2</sup>R<sup>2</sup>, dd) -C(R<sup>2</sup>)(R<sup>3</sup>)NR<sup>2</sup>R<sup>12</sup>, ee) =NR<sup>12</sup>, ff) -C(S)NR<sup>2</sup>R<sup>2</sup>,  
gg) -N(R<sup>2</sup>)C(S)R<sup>2</sup>, hh) -OC(S)NR<sup>2</sup>R<sup>2</sup>, ii) -N(R<sup>2</sup>)C(S)OR<sup>3</sup>,  
jj) -N(R<sup>2</sup>)C(S)NR<sup>2</sup>R<sup>2</sup>, kk) -SC(O)R<sup>2</sup>, ll) C<sub>1-8</sub> alkyl, mm) C<sub>1-8</sub> alkenyl,  
nn) C<sub>2-8</sub> alkynyl, oo) C<sub>1-8</sub> alkoxy, pp) C<sub>1-8</sub> alkylthio, qq) C<sub>1-8</sub> acyl, rr)  
saturated, unsaturated, or aromatic C<sub>5-10</sub> carbocycle, and ss) saturated,

Amendment  
U.S. Serial No.: 10/671,326  
Page 7 of 53

unsaturated, or aromatic 5-10 membered heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of (l) – (ss) optionally is substituted with one or more moieties selected from the group consisting of:

carbonyl; formyl; F; Cl; Br; I; CN; NO<sub>2</sub>; OR<sup>3</sup>; -Si(O)<sub>r</sub>R<sup>5</sup>;  
-S(O)<sub>r</sub>N=R<sup>2</sup>; -C(O)R<sup>2</sup>; -C(O)OR<sup>3</sup>; -OC(O)R<sup>2</sup>; -C(O)NR<sup>2</sup>R<sup>2</sup>;  
-OC(O)NR<sup>2</sup>R<sup>2</sup>; -C(=NR<sup>10</sup>)R<sup>2</sup>; -C(R<sup>2</sup>)(R<sup>2</sup>)OR<sup>3</sup>;  
-C(R<sup>2</sup>)(R<sup>2</sup>)OC(O)R<sup>2</sup>; -C(R<sup>2</sup>)(OR<sup>3</sup>)(CH<sub>2</sub>)<sub>r</sub>NR<sup>2</sup>R<sup>2</sup>; -NR<sup>2</sup>R<sup>2</sup>;  
-NR<sup>2</sup>OR<sup>3</sup>; -NR<sup>2</sup>C(O)R<sup>2</sup>; -NR<sup>2</sup>C(O)OR<sup>3</sup>; -NR<sup>2</sup>C(O)NR<sup>2</sup>R<sup>2</sup>;  
-NR<sup>2</sup>S(O)<sub>r</sub>R<sup>5</sup>; -C(OR<sup>6</sup>)(OR<sup>6</sup>)R<sup>2</sup>; -C(R<sup>2</sup>)(R<sup>3</sup>)NR<sup>2</sup>R<sup>2</sup>;  
-C(R<sup>2</sup>)(R<sup>3</sup>)NR<sup>2</sup>R<sup>12</sup>; =NR<sup>12</sup>; -C(S)NR<sup>2</sup>R<sup>2</sup>; -NR<sup>2</sup>C(S)R<sup>2</sup>;  
-OC(S)NR<sup>2</sup>R<sup>2</sup>; -NR<sup>2</sup>C(S)OR<sup>3</sup>; -NR<sup>2</sup>C(S)NR<sup>2</sup>R<sup>2</sup>; -SC(O)R<sup>2</sup>;  
C<sub>2-5</sub> alkenyl; C<sub>2-5</sub> alkynyl; C<sub>1-8</sub> alkoxy; C<sub>1-8</sub> alkylthio; C<sub>1-8</sub> acyl;  
saturated, unsaturated, or aromatic C<sub>5-10</sub> carbocycle, optionally  
substituted with one or more R<sup>8</sup> groups; and saturated, unsaturated,  
or aromatic 5-10 membered heterocycle containing one or more  
heteroatoms selected from the group consisting of nitrogen,  
oxygen, and sulfur, and optionally substituted with one or more R<sup>8</sup>  
groups;

R<sup>8</sup> is selected from the group consisting of:

hydrogen; F; Cl; Br; I; CN; NO<sub>2</sub>; OR<sup>6</sup>; aryl; substituted aryl; heteroaryl;  
substituted heteroaryl; and C<sub>1-6</sub> alkyl, optionally substituted with one or  
more moieties selected from the group consisting of aryl, substituted aryl,  
heteroaryl, substituted heteroaryl, F, Cl, Br, I, CN, NO<sub>2</sub>, and OR<sup>6</sup>;

alternatively, R<sup>7</sup> and R<sup>8</sup> taken together are -O(CH<sub>2</sub>)<sub>r</sub>O-;

R<sup>9</sup>, at each occurrence, independently is selected from the group consisting of:

hydrogen, F, Cl, Br, I, CN, OR<sup>3</sup>, NO<sub>2</sub>, -NR<sup>2</sup>R<sup>2</sup>, C<sub>1-6</sub> alkyl, C<sub>1-6</sub> acyl, and  
C<sub>1-6</sub> alkoxy;

R<sup>10</sup> is selected from the group consisting of:

Amendment  
U.S. Serial No.: 10/671,326  
Page 8 of 53

a) saturated, unsaturated, or aromatic C<sub>5-10</sub> carbocycle, b) saturated, unsaturated, or aromatic 5-10 membered heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, c) -X-C<sub>1-6</sub> alkyl-saturated, unsaturated, or aromatic 5-10 membered heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, d) saturated, unsaturated, or aromatic 10-membered bicyclic ring system optionally containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, e) saturated, unsaturated, or aromatic 13-membered tricyclic ring system optionally containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and f) R<sup>9</sup>,

wherein

any of a) - e) optionally is substituted with one or more R<sup>13</sup> groups, and

X is O or NR<sup>3</sup>;

alternatively, R<sup>10</sup> and one R<sup>9</sup> group, taken together with the atoms to which they are bonded, form a 5-7 membered saturated or unsaturated carbocycle, optionally substituted with one or more R<sup>13</sup> groups; or a 5-7 membered saturated or unsaturated heterocycle containing one or more atoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with one or more R<sup>13</sup> groups;

R<sup>11</sup> at each occurrence, independently is selected from the group consisting of:

hydrogen; an electron-withdrawing group; aryl; substituted aryl; heteroaryl; substituted heteroaryl; and C<sub>1-6</sub> alkyl, optionally substituted with F, Cl, or Br;

alternatively, any R<sup>11</sup> and R<sup>8</sup>, taken together with the atoms to which they are bonded, form a 5-7 membered saturated or unsaturated carbocycle, optionally substituted with one or more R<sup>13</sup> groups; or a 5-7 membered saturated or unsaturated heterocycle containing one or more atoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with one or more R<sup>13</sup> groups;

Amendment  
U.S. Serial No.: 10/671,326  
Page 9 of 53

$R^{12}$  is selected from the group consisting of:

$-NR^2R^2$ ,  $-OR^3$ ,  $-OC(O)R^2$ ,  $-OC(O)OR^3$ ,  $-NR^2C(O)R^2$ ,  $-NR^2C(O)NR^2R^2$ ,  
 $-NR^2C(S)NR^2R^2$ , and  $-NR^2C(=NR^2)NR^2R^2$ ;

$R^{13}$ , at each occurrence, independently is selected from the group consisting of:

a) hydrogen, b) carbonyl, c) formyl d) F, e) Cl, f) Br, g) I, h) CN, i)  $NO_2$ , j)  
 $OR^3$ , k)  $-S(O)_rR^5$ , l)  $-S(O)_rN=R^3$ , m)  $-C(O)R^2$ , n)  $-C(O)OR^3$ , o)  $-OC(O)R^2$ ,  
p)  $-C(O)NR^2R^2$ , q)  $-OC(O)NR^2R^2$ , r)  $-C(=NR^{12})R^2$ , s)  $-C(R^2)(R^2)OR^3$ ,  
t)  $-C(R^2)(R^2)OC(O)R^2$ , u)  $-C(R^2)(OR^3)(CH_2)_rNR^2R^2$ , v)  $-NR^2R^2$ , w)  
 $-NR^2OR^3$ , x)  $-N(R^2)C(O)R^2$ , y)  $-N(R^2)C(O)OR^3$ , z)  $-N(R^2)C(O)NR^2R^2$ , aa)  
 $-N(R^2)S(O)_rR^5$ , bb)  $-C(OR^6)(OR^6)R^2$ , cc)  $-C(R^2)(R^3)NR^2R^2$ , dd)  
 $-C(R^2)(R^3)NR^2R^{12}$ , ee)  $=NR^{12}$ , ff)  $-C(S)NR^2R^2$ , gg)  $-N(R^2)C(S)R^2$ , hh)  
 $-OC(S)NR^2R^2$ , ii)  $-N(R^2)C(S)OR^3$ , jj)  $-N(R^2)C(S)NR^2R^2$ , kk)  $-SC(O)R^2$ ,  
ll)  $C_{1-8}$  alkyl, mm)  $C_{2-8}$  alkenyl, nn)  $C_{2-8}$  alkynyl, oo)  $C_{1-8}$  alkoxy,  
pp)  $C_{1-8}$  alkylthio, qq)  $C_{1-8}$  acyl, rr) saturated, unsaturated or aromatic  $C_{5-10}$   
carbocycle, ss) saturated, unsaturated, or aromatic 5-10 membered  
heterocycle containing one or more heteroatoms selected from the group  
consisting of nitrogen, oxygen, and sulfur, tt) saturated, unsaturated, or  
aromatic 10-membered bicyclic ring system optionally containing one or  
more heteroatoms selected from the group consisting of nitrogen, oxygen,  
and sulfur, and uu) saturated, unsaturated, or aromatic 13-membered  
tricyclic ring system optionally containing one or more heteroatoms  
selected from the group consisting of nitrogen, oxygen, and sulfur,

wherein any of ll) – uu) optionally is substituted with one or more  
moieties selected from the group consisting of:

carbonyl; formyl; F; Cl; Br; I; CN;  $NO_2$ ;  $OR^3$ ;  $-S(O)_rR^5$ ;  
 $-S(O)_rN=R^2$ ,  $-C(O)R^2$ ;  $-C(O)OR^3$ ;  $-OC(O)R^2$ ;  $-C(O)NR^2R^2$ ;  
 $-OC(O)NR^2R^2$ ;  $-C(=NR^{12})R^2$ ;  $-C(R^2)(R^2)CR^3$ ;  
 $-C(R^2)(R^2)OC(O)R^2$ ;  $-C(R^2)(OR^3)(CH_2)_rNR^2R^2$ ;  $-NR^2R^2$ ;  
 $-NR^2OR^3$ ;  $-NR^2C(O)R^2$ ;  $-NR^2C(O)OR^3$ ;  $-NR^2C(O)NR^2R^2$ ;  
 $-NR^2S(O)_rR^5$ ;  $-C(OR^6)(OR^6)R^2$ ;  $-C(R^2)(R^3)NR^2R^2$ ;



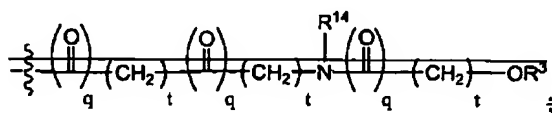
Amendment  
U.S. Serial No.: 10/671,326  
Page 10 of 53

-C(R<sup>2</sup>)(R<sup>3</sup>)NR<sup>2</sup>R<sup>12</sup>; =NR<sup>12</sup>; -C(S)NR<sup>2</sup>R<sup>2</sup>; -NR<sup>2</sup>C(S)R<sup>2</sup>;  
-OC(S)NR<sup>2</sup>R<sup>2</sup>; -NR<sup>2</sup>C(S)OR<sup>3</sup>; -NR<sup>2</sup>C(S)NR<sup>2</sup>R<sup>2</sup>; -SC(O)R<sup>2</sup>;  
C<sub>1-8</sub> alkyl, C<sub>2-8</sub> alkenyl; C<sub>2-8</sub> alkynyl; C<sub>1-8</sub> alkoxy; C<sub>1-8</sub>  
alkylthio; C<sub>1-8</sub> acyl; saturated, unsaturated, or aromatic C<sub>3-10</sub>  
carbocycle optionally substituted with one or more R<sup>7</sup>  
groups; and saturated, unsaturated, or aromatic 3-10  
membered heterocycle containing one or more heteroatoms  
selected from the group consisting of nitrogen, oxygen, and  
sulfur, and substituted with one or more R<sup>7</sup> groups;

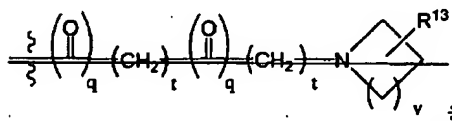
G is selected from the group consisting of:

- a) C<sub>1-4</sub> alkyl, b) C<sub>3-8</sub> alkyl, c) C<sub>2-8</sub> alkenyl, d) C<sub>2-8</sub> alkynyl, e) C<sub>1-8</sub> alkoxy,  
f) C<sub>1-8</sub> alkylthio, g) saturated, unsaturated, or aromatic C<sub>5-10</sub> carbocycle, h)  
saturated, unsaturated, or aromatic 5-10 membered heterocycle containing  
one or more heteroatoms selected from the group consisting of nitrogen,  
oxygen, and sulfur,

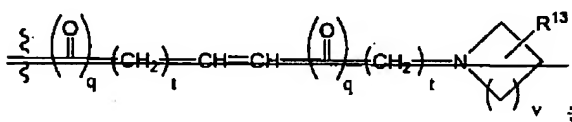
i)



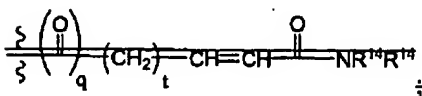
j)



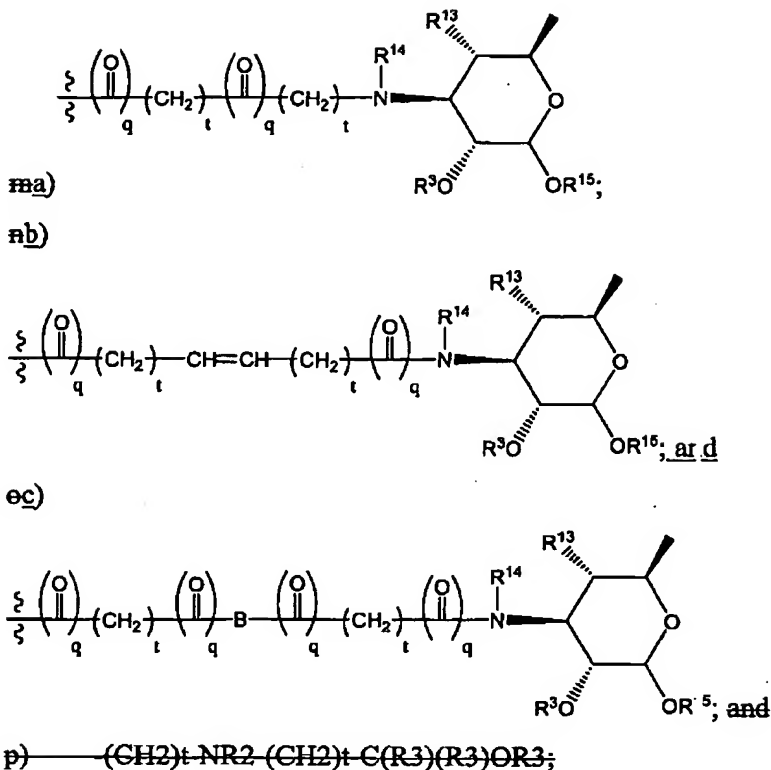
k)



l)



Amendment  
U.S. Serial No.: 10/671,326  
Page 11 of 53



wherein

i) ~~a) is substituted with, and~~

ii) ~~any of b) i) optionally is substituted with one or more~~

~~moieties selected from the group consisting of:~~

~~carbonyl; formyl; F; Cl; Br; I; CN; NO<sub>2</sub>; OR<sub>3</sub>; S(O)<sub>r</sub>R<sub>5</sub>;  
 S(O)<sub>r</sub>N=R<sub>2</sub>; C(O)R<sub>2</sub>; C(O)OR<sub>3</sub>; OC(O)R<sub>2</sub>;  
 C(O)NR<sub>2</sub>R<sub>2</sub>; OC(O)NR<sub>2</sub>R<sub>2</sub>; C(=NR<sub>12</sub>)R<sub>2</sub>;  
 C(R<sub>2</sub>)(R<sub>2</sub>)OR<sub>3</sub>; C(R<sub>2</sub>)(R<sub>2</sub>)OC(O)R<sub>2</sub>;  
 C(R<sub>2</sub>)(OR<sub>3</sub>)(CH<sub>2</sub>)<sub>r</sub>NR<sub>2</sub>R<sub>2</sub>; NR<sub>2</sub>R<sub>2</sub>; NR<sub>2</sub>OR<sub>3</sub>;  
 NR<sub>2</sub>C(O)R<sub>2</sub>; NR<sub>2</sub>C(O)OR<sub>3</sub>; NR<sub>2</sub>C(O)<sub>r</sub>NR<sub>2</sub>R<sub>2</sub>;  
 NR<sub>2</sub>S(O)<sub>r</sub>R<sub>5</sub>; C(OR<sub>6</sub>)(OR<sub>6</sub>)R<sub>2</sub>; C(R<sub>2</sub>)(R<sub>3</sub>)NR<sub>2</sub>R<sub>2</sub>;  
 C(R<sub>2</sub>)(R<sub>3</sub>)NR<sub>2</sub>R<sub>12</sub>; NR<sub>12</sub>; C(S)NR<sub>2</sub>R<sub>2</sub>; NR<sub>2</sub>C(S)R<sub>2</sub>;  
 OC(S)NR<sub>2</sub>R<sub>2</sub>; NR<sub>2</sub>C(S)OR<sub>3</sub>; NR<sub>2</sub>C(S)<sub>r</sub>NR<sub>2</sub>R<sub>2</sub>;  
 SC(O)R<sub>2</sub>; C2-5 alkenyl; C2-5 alkynyl; C1-8 alkoxy; C1-8  
 alkylthio; C1-8 acyl; saturated, unsaturated, or aromatic C5-~~

Amendment  
U.S. Serial No.: 10/671,326  
Page 12 of 53

~~10-membered heterocycle, optionally substituted with one or more R<sup>13</sup> groups; and saturated, unsaturated, or aromatic 5-10 membered heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and optionally substituted with one or more R<sup>13</sup> groups;~~

t, at each occurrence, independently is 0, 1, 2, or 3;

~~v is 0, 1, 2, 3, 4, 5, or 6;~~

R<sup>14</sup> is selected from the group consisting of:

- a) hydrogen, b) C<sub>1-6</sub>-alkyl, c) C<sub>2-6</sub> alkenyl, d) C<sub>2-6</sub> alkynyl, e) -C(O)-R<sup>3</sup>, f) -C(O)-C<sub>1-6</sub> alkyl-R<sup>3</sup>, g) -C(O)-C<sub>2-6</sub> alkenyl-R<sup>3</sup>, h) -C(O)-C<sub>2-6</sub> alkynyl-R<sup>3</sup>, i) -C<sub>1-6</sub> alkyl-J-R<sup>3</sup>, j) -C<sub>2-6</sub> alkenyl-J-R<sup>3</sup>; and k) -C<sub>2-6</sub> alkynyl-J-R<sup>3</sup>;

wherein

- (i) any of b) - d) optionally is substituted with one or more substituents selected from the group consisting of:

F, Cl, Br, I, aryl, substituted aryl, heteroaryl, substituted heteroaryl, -OR<sup>3</sup>, -O-C<sub>1-6</sub> alkyl-R<sup>2</sup>, -O-C<sub>2-6</sub> alkenyl-R<sup>2</sup>, -O-C<sub>2-6</sub> alkynyl-R<sup>2</sup>, and -NR<sup>2</sup>R<sup>2</sup>; and

- (ii) J is selected from the group consisting of:

-OC(O)-, -OC(O)O-, -OC(O)NR<sup>2</sup>-, -C(O)NR<sup>2</sup>-, -NR<sup>2</sup>C(O)-, -NR<sup>2</sup>C(O)O-, -NR<sup>2</sup>C(O)NR<sup>2</sup>-, -NR<sup>2</sup>C(NH)NR<sup>2</sup>-, and S(O)<sub>n</sub>; and

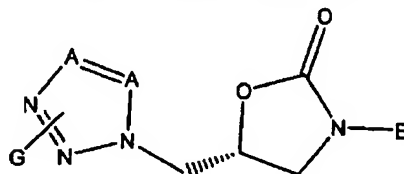
R<sup>15</sup> is selected from the group consisting of:

hydrogen; C<sub>1-10</sub> alkyl, optionally substituted with one or more R<sup>13</sup> groups; C<sub>1-6</sub> acyl, optionally substituted with one or more R<sup>13</sup> groups; aryl; substituted aryl; heteroaryl; substituted heteroaryl; arylalkyl; substituted arylalkyl; and a macrolide.

2.-4. (Cancelled)

Amendment  
U.S. Serial No.: 10/671,326  
Page 13 of 53

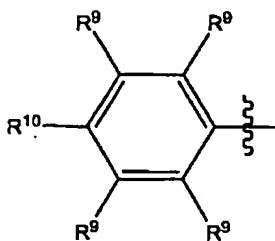
5. (Original) The compound according to claim 4, having the formula:



wherein A, E, and G are as defined in claim 1.

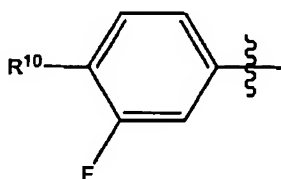
6.-8. (Cancelled)

9. (Original) The compound according to claim 1, wherein E has the formula:



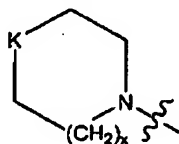
wherein  $R^9$  and  $R^{10}$ , at each occurrence, are as defined in claim 1.

10. (Original) The compound according to claim 1, wherein E has the formula:



wherein  $R^{10}$  is as defined in claim 1.

11. (Original) The compound according to claim 9, wherein  $R^{10}$  has the formula:

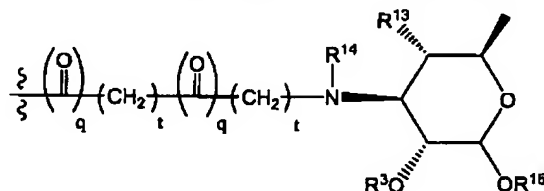


wherein

Amendment  
U.S. Serial No.: 10/671,326  
Page 14 of 53

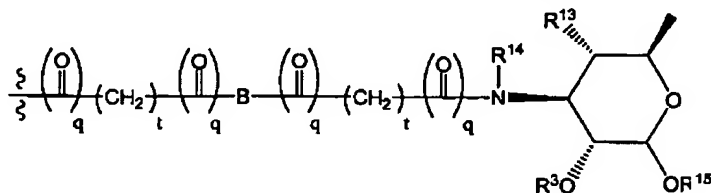
K is selected from the group consisting of O,  $\text{NR}^2$ , and  $\text{S}(\text{O})_x$ , and  
x is 0, 1, 2, or 3.

12. (Original) The compound according to claim 11, wherein K is oxygen.
13. (Previously presented) The compound according to claim 11, wherein x is 1.
14. -17 (Cancelled)
18. (Original) The compound according to claim 1, wherein G has the formula:



and  $\text{R}^{15}$  is a macrolide.

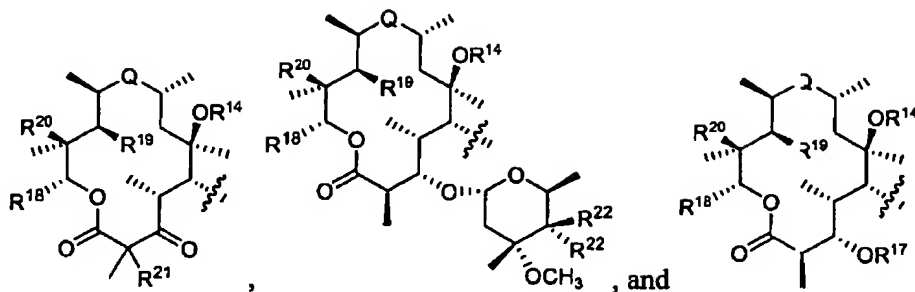
19. (Original) The compound according to claim 1, wherein G has the formula:



and  $\text{R}^{15}$  is a macrolide.

20. (Original) The compound according to claim 1, wherein  $\text{R}^{15}$  is selected from the group consisting of:

Amendment  
U.S. Serial No.: 10/671,326  
Page 15 of 53



and pharmaceutically acceptable salts, esters and prodrugs thereof, wherein

$R^{17}$  is selected from the group consisting of:

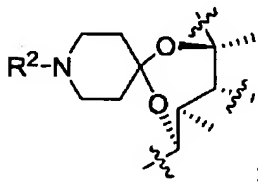
hydrogen, hydroxy protecting group,  $R^3$ , and  $-V-W-R^{13}$ ,

wherein

V is  $-C(O)$ ,  $-C(O)O-$ ,  $-C(O)NR^2-$ , or absent; and

W is  $C_{1-6}$  alkyl, or absent;

alternatively  $R^{17}$  and  $R^{14}$ , taken together with the atoms to which they are bonded, form:



Q is selected from the group consisting of:

$-NR^2CH_2-$ ,  $-CH_2-NR^2-$ ,  $-C(O)-$ ,  $-C(=NR^2)-$ ,  $-C(=NOR^3)-$ ,  $-C(=N-NR^2R^2)-$ ,  $-CH(OR^3)-$ , and  $-CH(NR^2R^2)-$ ;

$R^{18}$  is selected from the group consisting of:

i)  $C_{1-6}$  alkyl, ii)  $C_{2-6}$  alkenyl, and iii)  $C_{2-6}$  alkynyl;

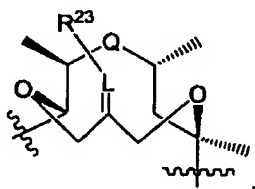
wherein any of i) – iii) optionally is substituted with one or more moieties selected from the group consisting of  $-OR^3$ , aryl, substituted aryl, heteroaryl, and substituted heteroaryl;

$R^{19}$  is selected from the group consisting of:

a)  $-OR^{17}$ , b)  $C_{1-6}$  alkyl, c)  $C_{2-6}$  alkenyl, d)  $C_{2-6}$  alkynyl, e)  $-NR^2R^2$ , f)  $-C(O)R^3$ , g)  $-C(O)-C_{1-6}$  alkyl- $R^{13}$ , h)  $-C(O)-C_{2-6}$  alkenyl- $R^3$ , and i)  $-C(O)-C_{2-6}$  alkynyl- $R^{13}$ ,

Amendment  
U.S. Serial No.: 10/671,326  
Page 16 of 53

wherein any of b) - d) optionally is substituted with one or more  $R^{13}$  groups;  
alternatively,  $R^{14}$  and  $R^{19}$ , taken together with the atoms to which they are bonded, form:



wherein

$L$  is  $CH$  or  $N$ , and

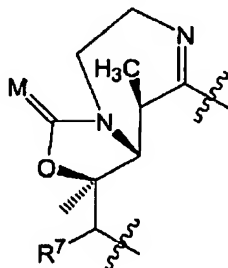
$R^{23}$  is  $-OR^3$ , or  $R^3$ ;

$R^{20}$  is  $-OR^{17}$ ;

alternatively,  $R^{19}$  and  $R^{20}$ , taken together with the atoms to which they are bonded, form a 5-membered ring by attachment to each other through a linker selected from the group consisting of:

$-OC(R^2)(R^2)O-$ ,  $-OC(O)O-$ ,  $-OC(O)NR^2-$ ,  $-NR^2C(O)O-$ ,  $-OC(O)NOR^3-$ ,  
 $-N(OR^3)C(O)O-$ ,  $-OC(O)N-NR^2R^2-$ ,  $-N(NR^2R^2)C(O)O-$ ,  $-OC(O)CHR^2-$ ,  
 $-CHR^2C(O)O-$ ,  $-OC(S)O-$ ,  $-OC(S)NR^2-$ ,  $-NR^2C(S)O-$ ,  $-OC(S)NOR^3-$ ,  
 $-N(OR^3)C(S)O-$ ,  $-OC(S)N-NR^2R^2-$ ,  $-N(NR^2R^2)C(S)O-$ ,  $-OC(S)CHR^2-$ , and  
 $-CHR^2C(S)O-$ ;

alternatively,  $Q$ ,  $R^{19}$ , and  $R^{20}$ , taken together with the atoms to which they are bonded, form:



wherein

$M$  is  $O$  or  $NR^2$ ;

Amendment  
U.S. Serial No.: 10/671,326  
Page 17 of 53

$R^{21}$  is selected from the group consisting of:

hydrogen, F, Cl, Br, and  $C_{1-6}$  alkyl;

$R^{22}$ , at each occurrence, independently is selected from the group consisting of:

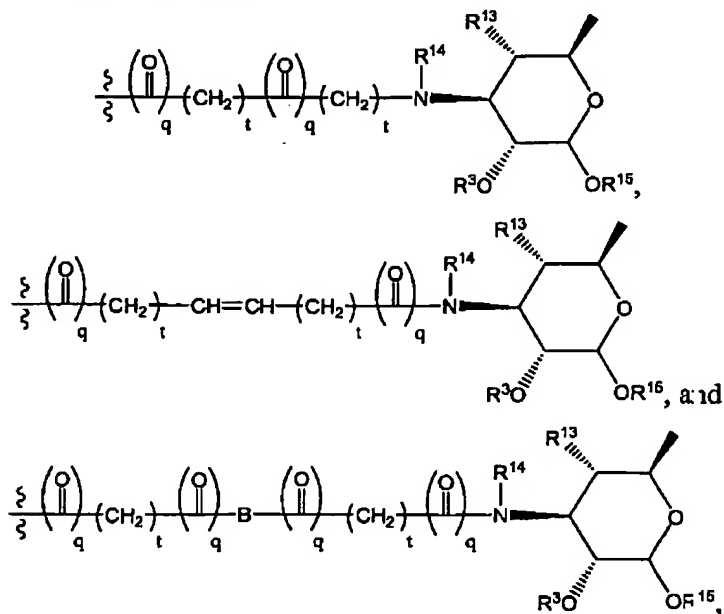
hydrogen,  $-OR^3$ ,  $-O$ -hydroxy protecting group,  $-O-C_{1-6}$  alkyl- $J-R^{13}$ ,

$-O-C_{2-6}$  alkenyl- $J-R^{13}$ ,  $-O-C_{1-6}$  alkynyl- $J-R^{13}$ , and  $-NR^2R^2$ ;

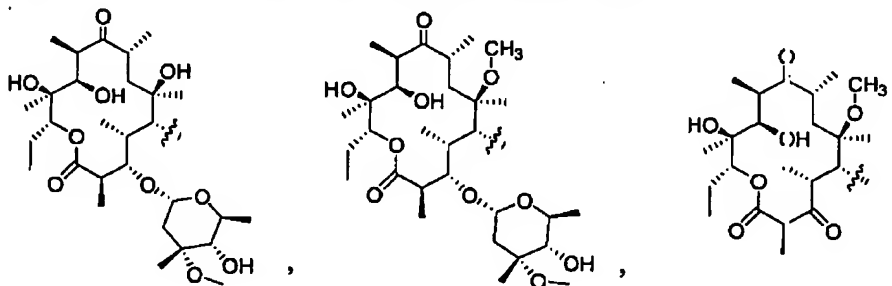
alternatively, two  $R^{22}$  groups taken together are  $=O$ ,  $=N-OR^3$ , or  $=N-NR^2R^2$ ; and

$R^2$ ,  $R^3$ ,  $R^{13}$ ,  $R^{14}$ , and  $J$  are as described in claim 1.

21. (Original) The compound according to claim 1, wherein  $G$  has the formula selected from the group consisting of:

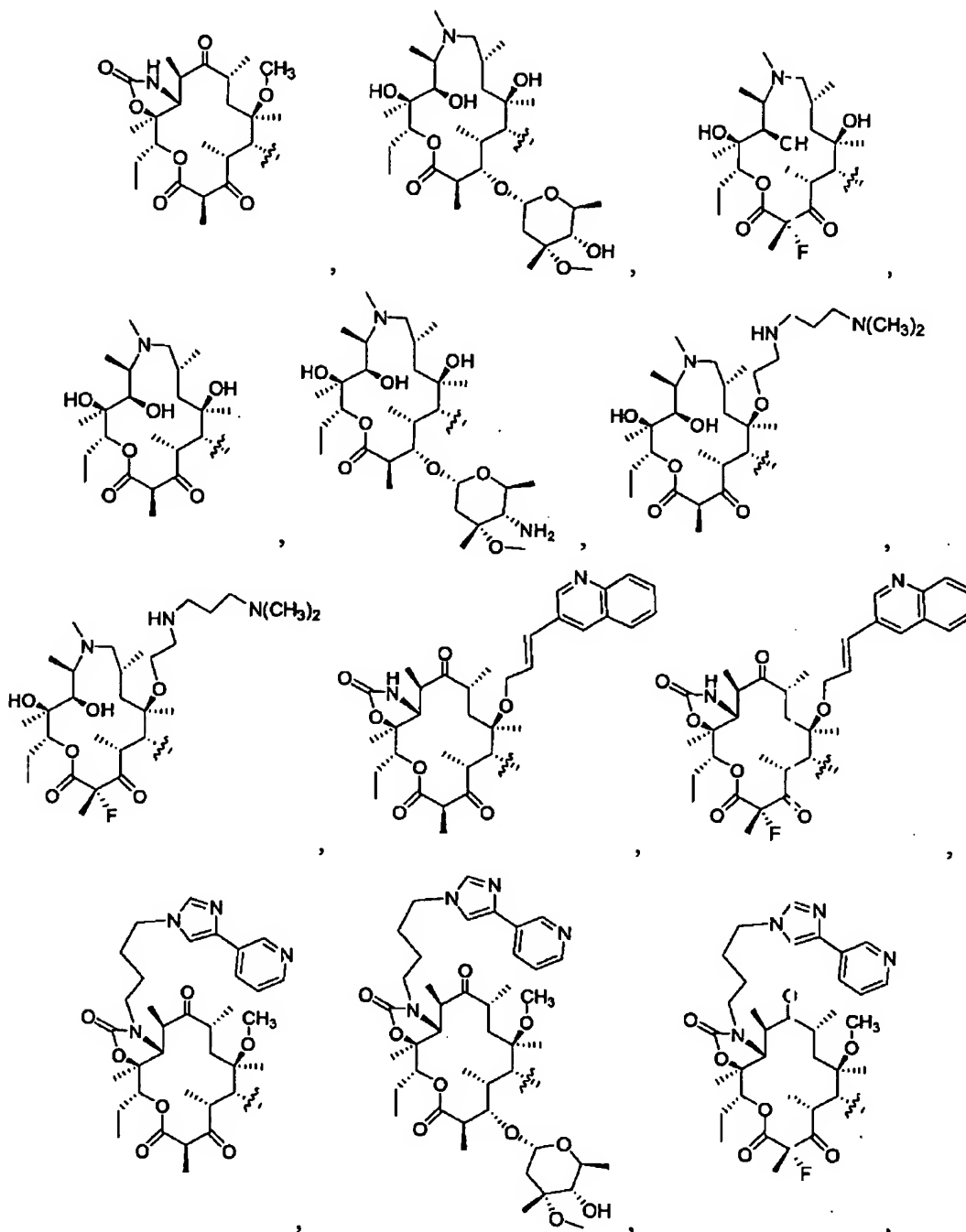


and  $R^{15}$  has the formula selected from the group consisting of:

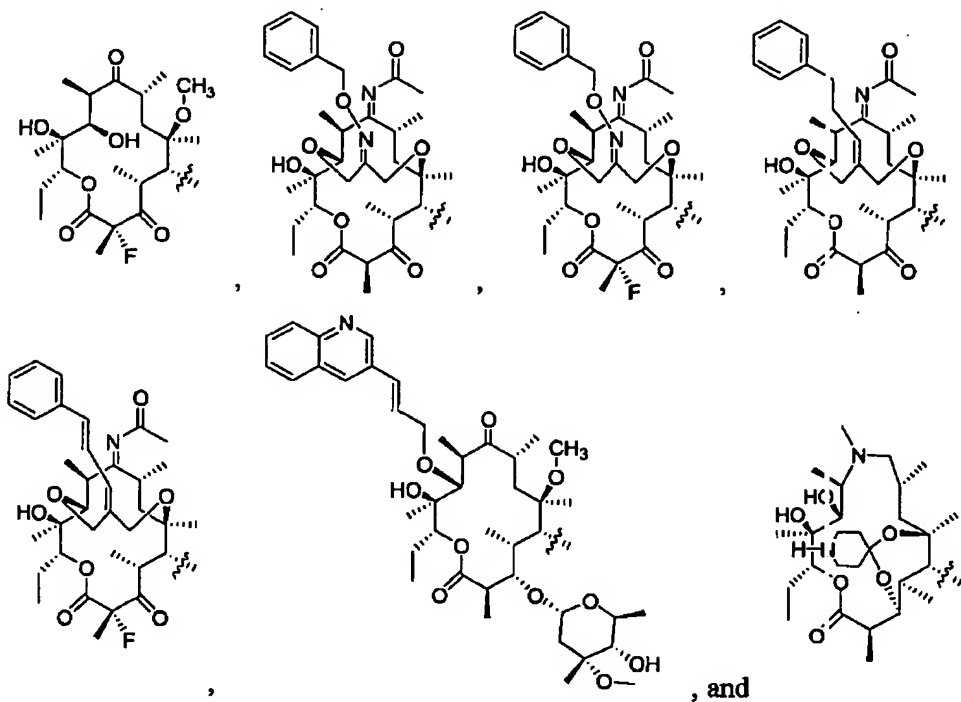




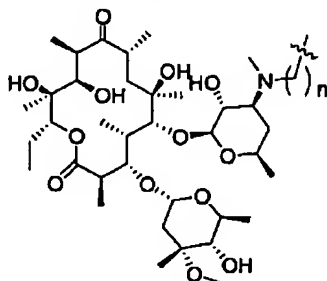
Amendment  
U.S. Serial No.: 10/671,326  
Page 18 of 53



Amendment  
U.S. Serial No.: 10/671,326  
Page 19 of 53



22. (Original) The compound according to claim 1, wherein G has the formula:

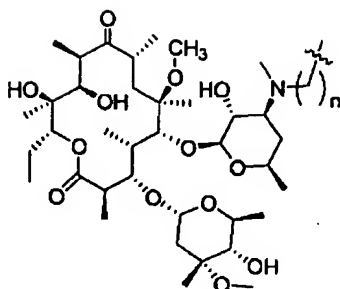


wherein  $n = 1, 2, 3, \text{ or } 4$ .

23. (Cancelled)

24. (Original) The compound according to claim 1, wherein G has the formula:

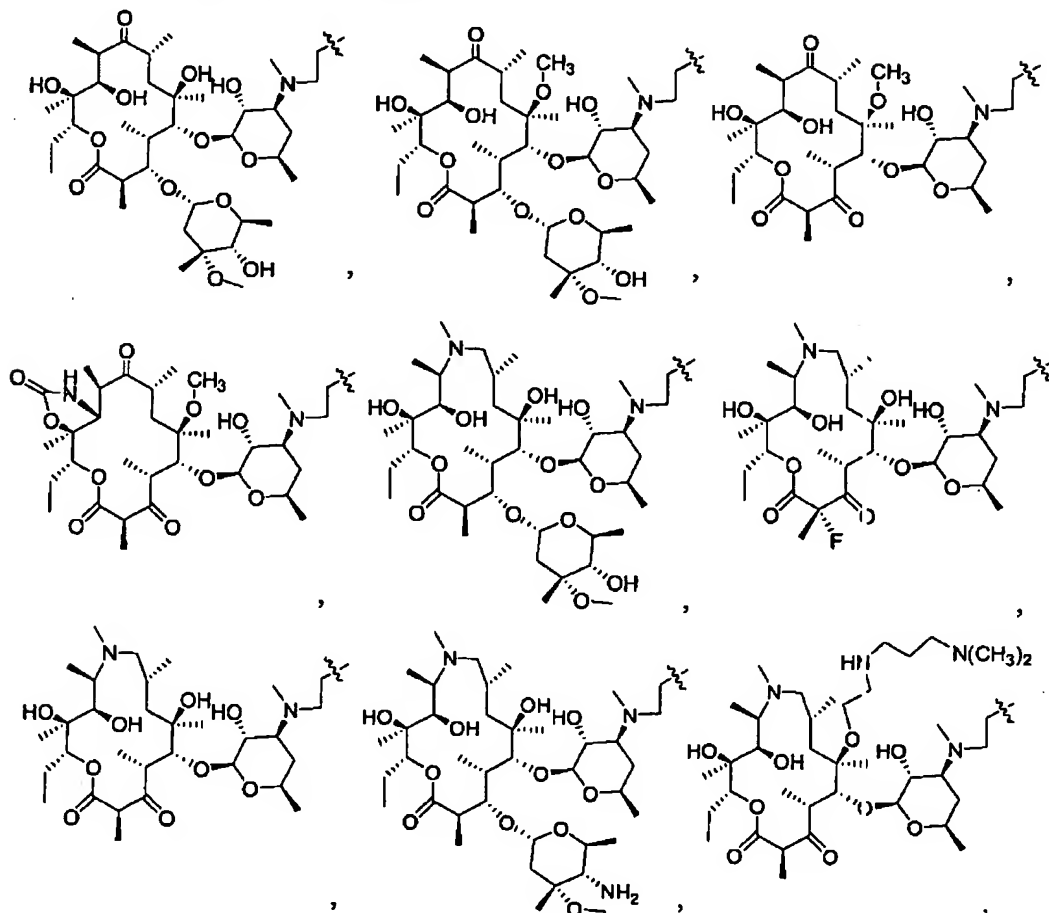
Amendment  
U.S. Serial No.: 10/671,326  
Page 20 of 53



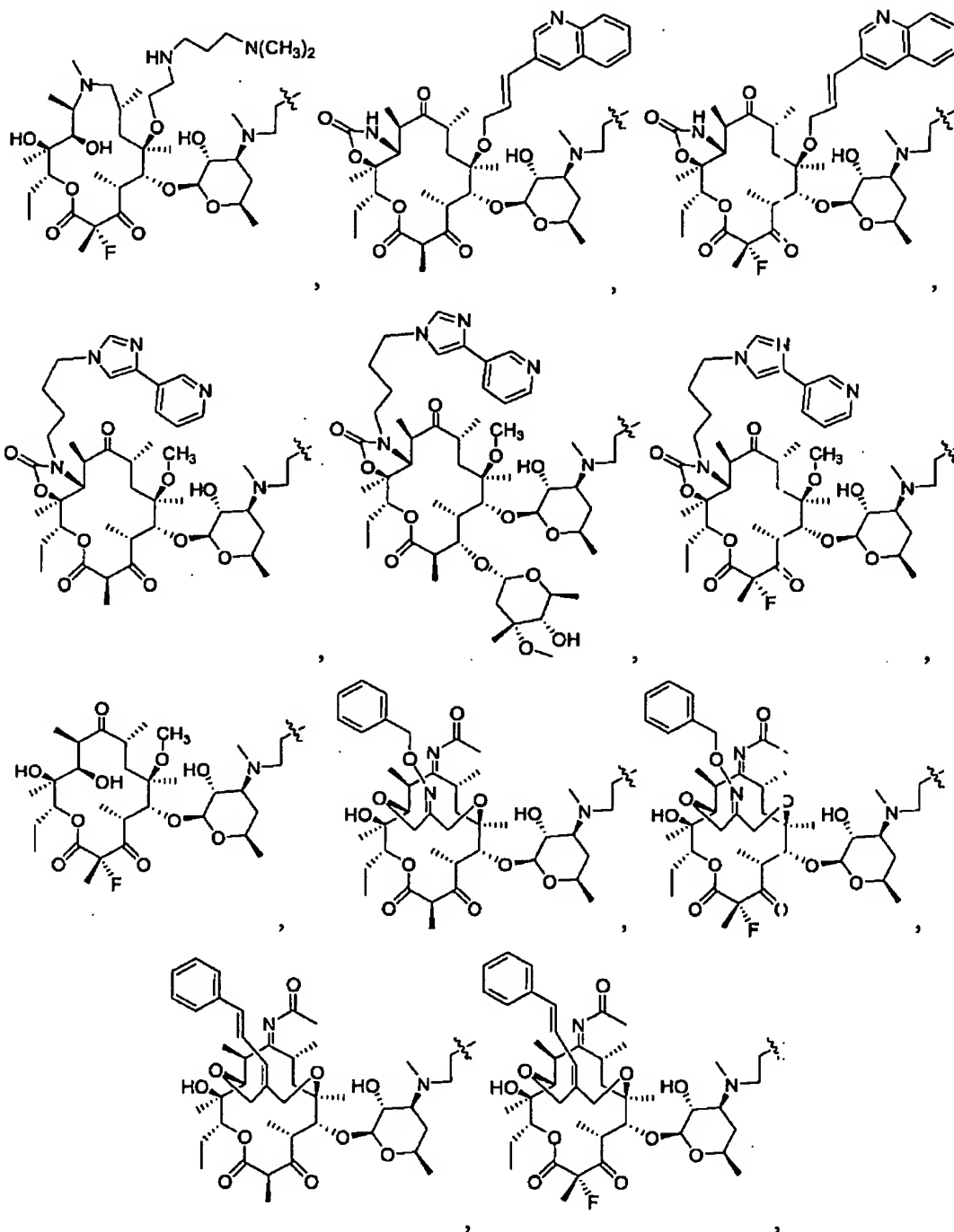
wherein  $n = 1, 2, 3$ , or  $4$ .

25. - 26. (Cancelled)

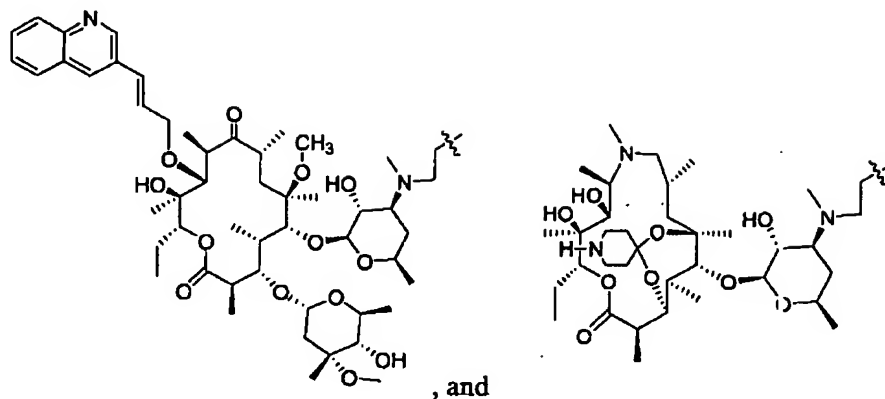
27. (Original) The compound according to claim 26, wherein G has the formula selected from the group consisting of:



Amendment  
U.S. Serial No.: 10/671,326  
Page 21 of 53



Amendment  
U.S. Serial No.: 10/671,326  
Page 22 of 53

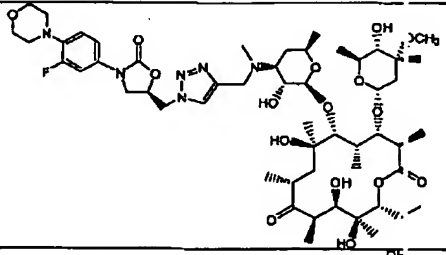
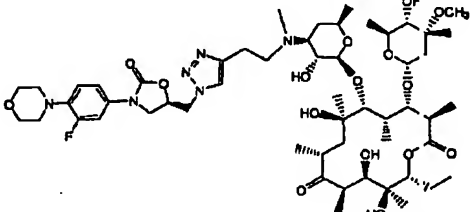
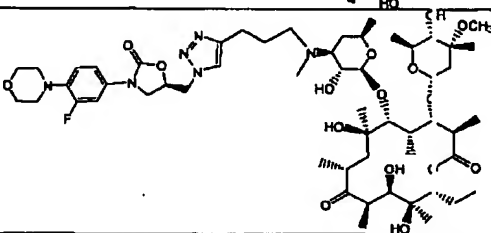
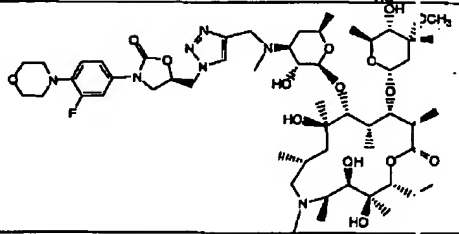
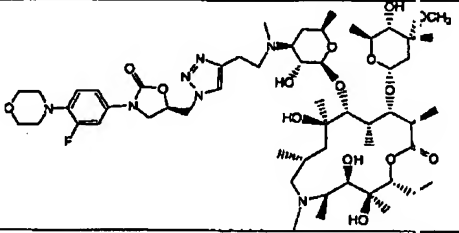
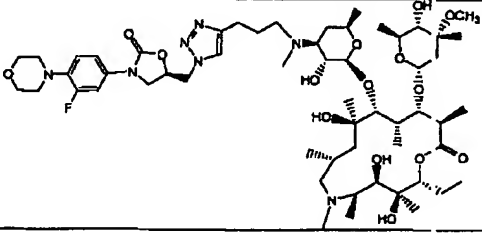


28.-29. (Cancelled).

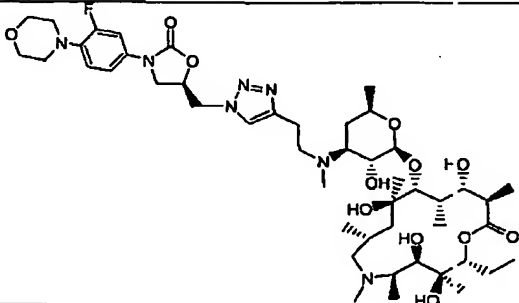
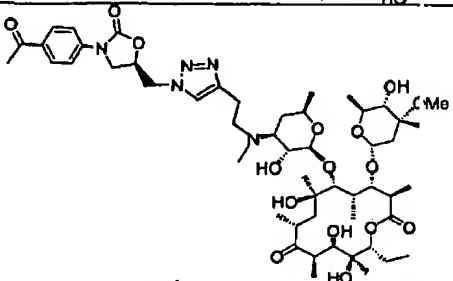
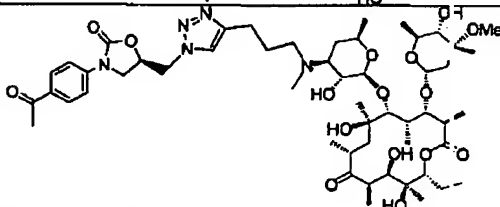
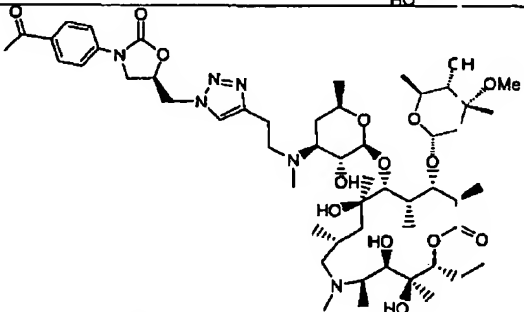
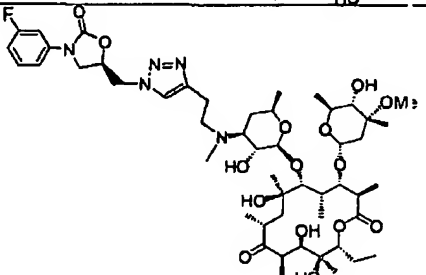
30. (Currently amended) A compound having the structure corresponding to any of the structures listed below:

Compound Number	Structure
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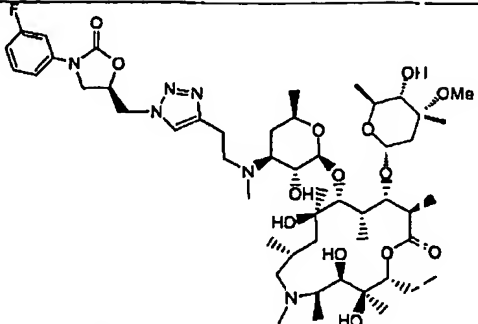
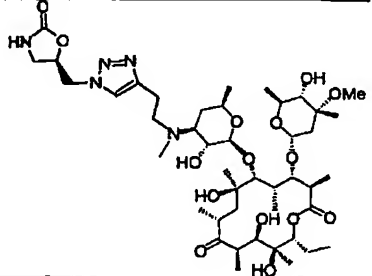
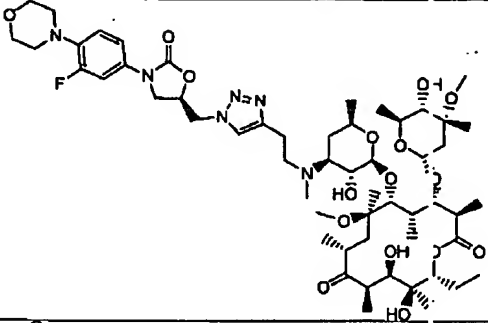
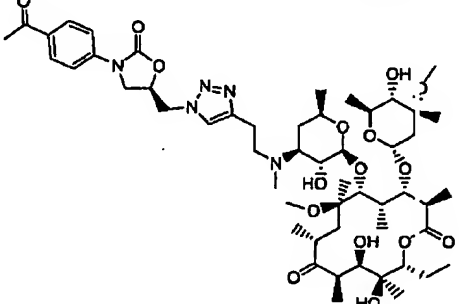
Amendment  
U.S. Serial No.: 10/671,326  
Page 23 of 53

148	
149	
150	
151	
152	
153	

Amendment  
U.S. Serial No.: 10/671,326  
Page 24 of 53

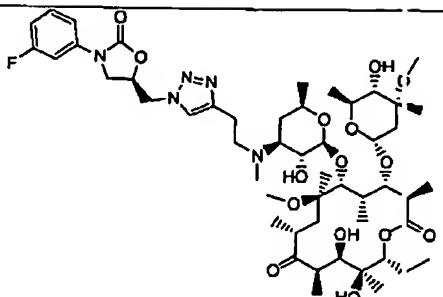
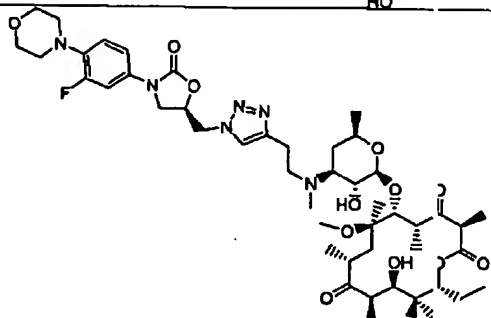
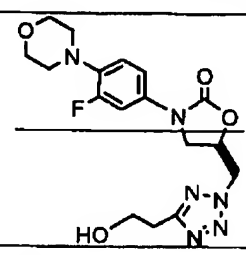
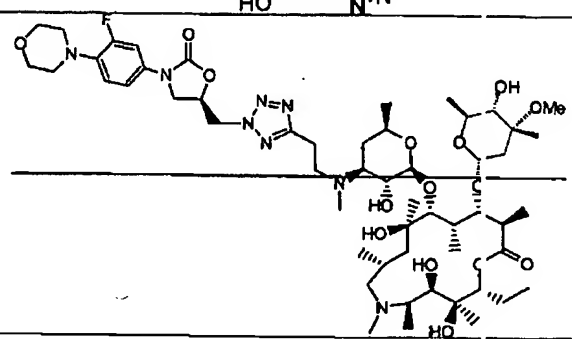
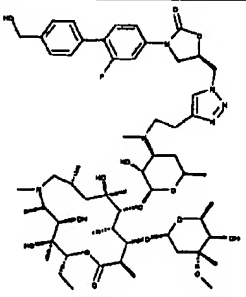
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Amendment  
U.S. Serial No.: 10/671,326  
Page 25 of 53

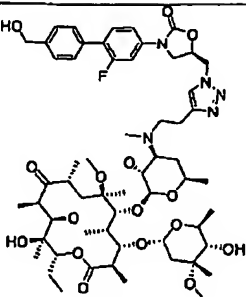
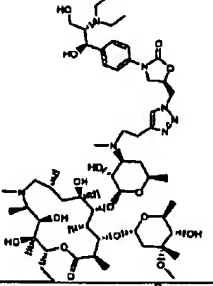
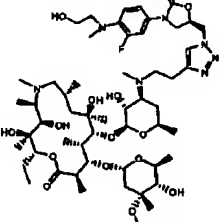
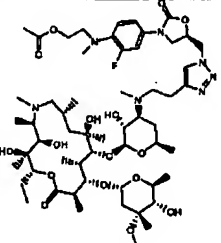
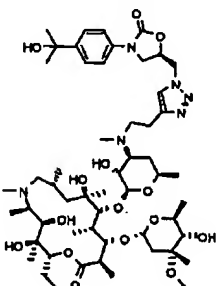
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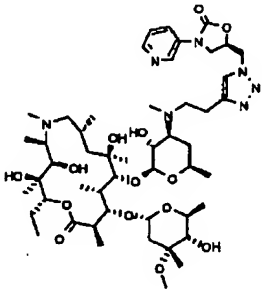
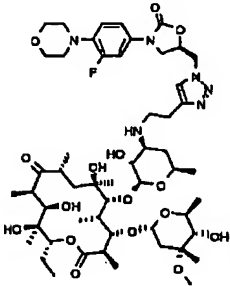
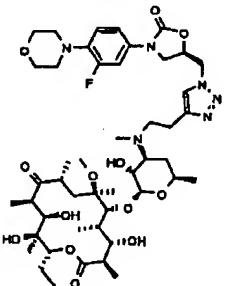
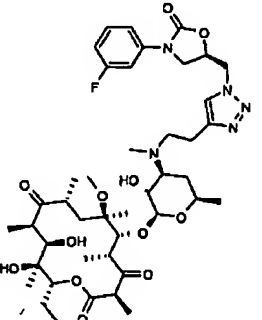
Amendment  
U.S. Serial No.: 10/671,326  
Page 26 of 53

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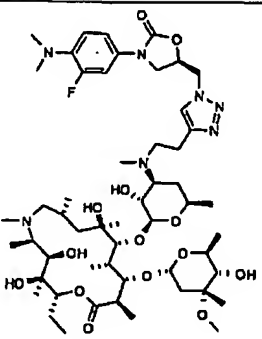
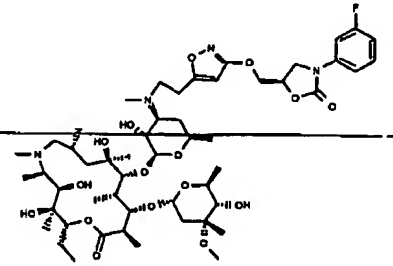
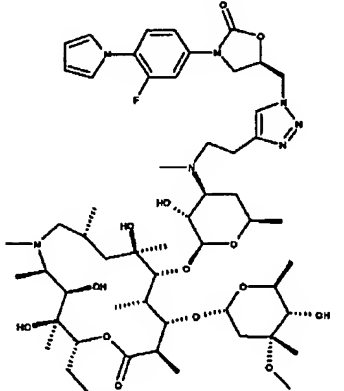
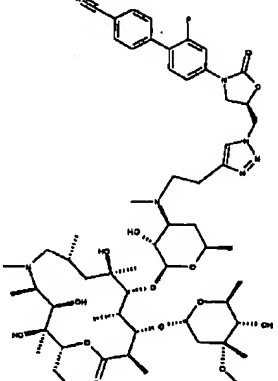
Amendment  
U.S. Serial No.: 10/671,326  
Page 27 of 53

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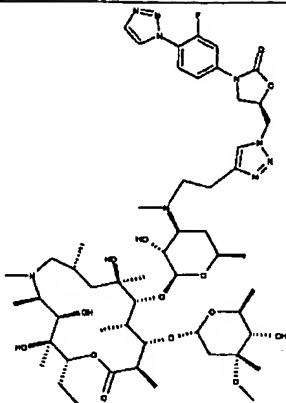
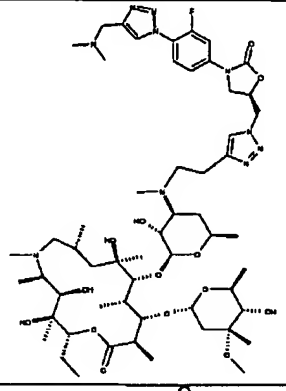
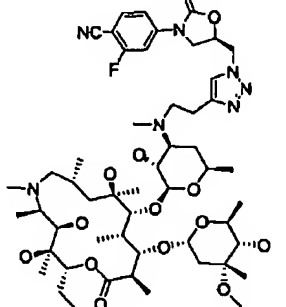
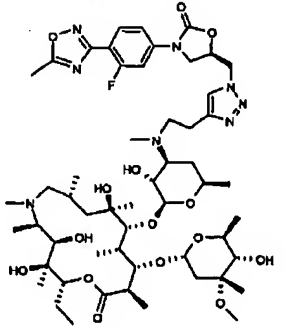
Amendment  
U.S. Serial No.: 10/671,326  
Page 28 of 53

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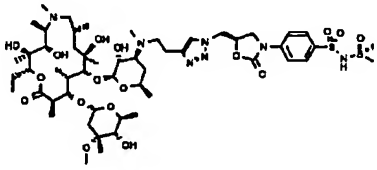
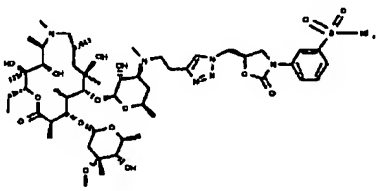
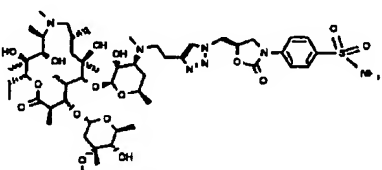
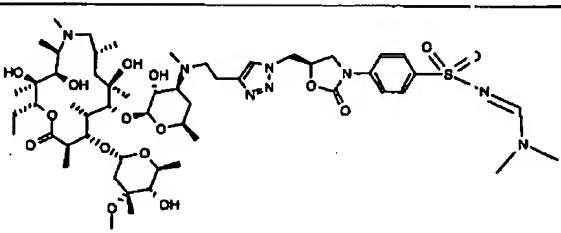
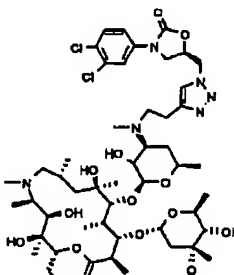
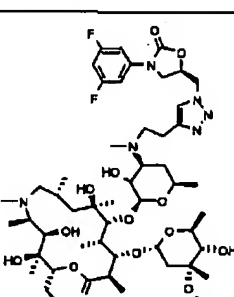
Amendment  
U.S. Serial No.: 10/671,326  
Page 29 of 53

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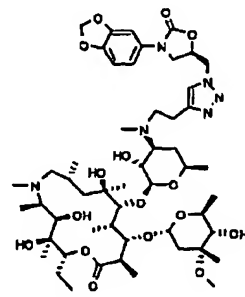
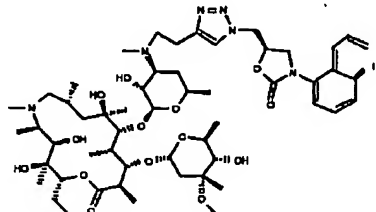
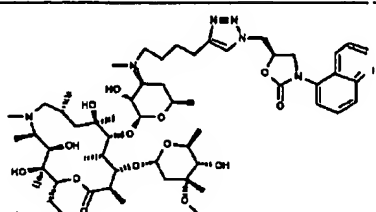
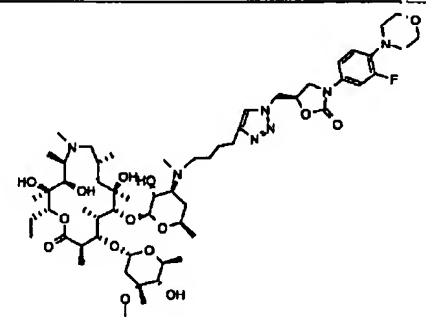
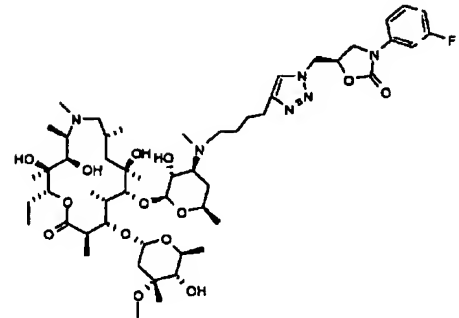
Amendment  
U.S. Serial No.: 10/671,326  
Page 30 of 53

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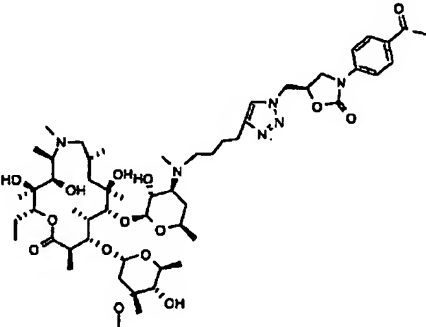
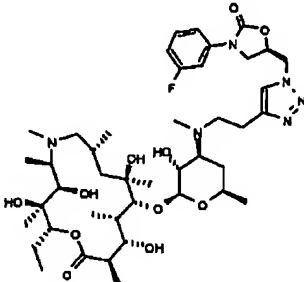
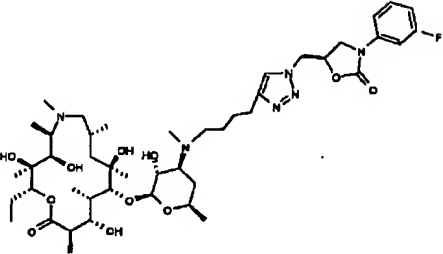
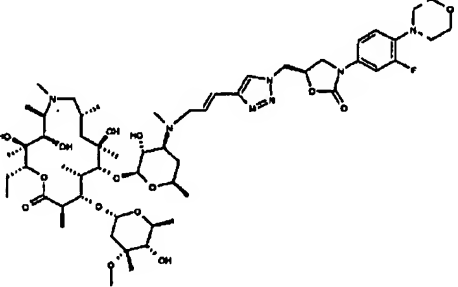
Amendment  
U.S. Serial No.: 10/671,326  
Page 31 of 53

221	
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Amendment  
U.S. Serial No.: 10/671,326  
Page 32 of 53

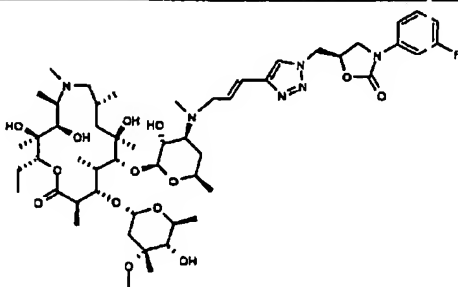
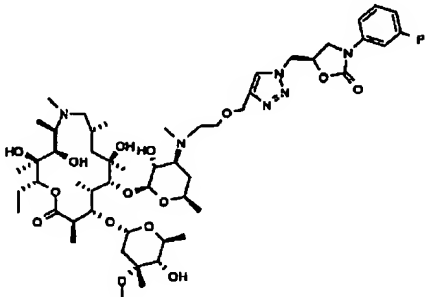
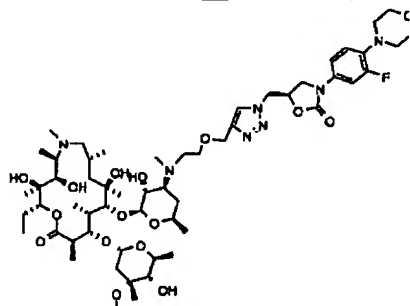
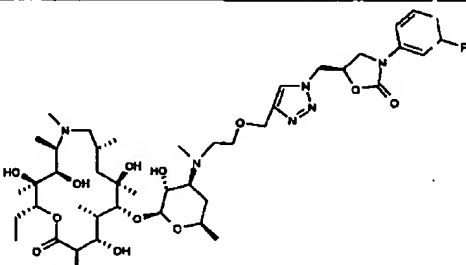
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Amendment  
U.S. Serial No.: 10/671,326  
Page 33 of 53

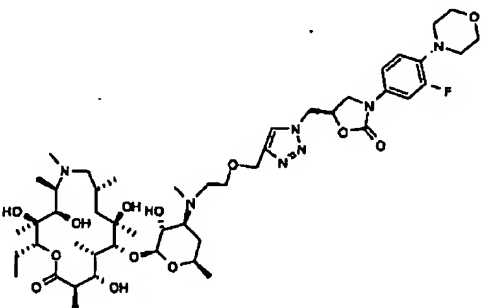
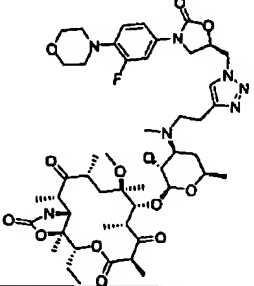
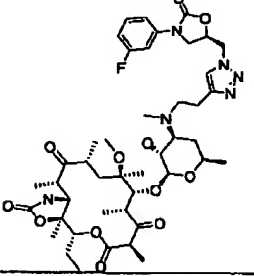
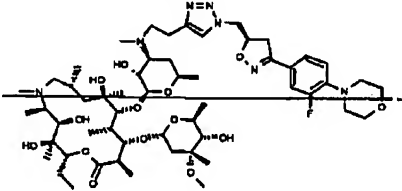
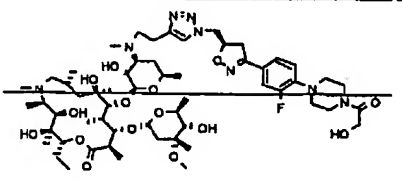
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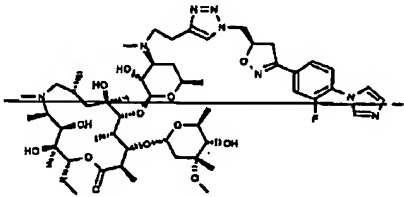
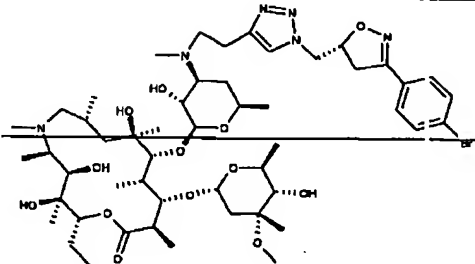
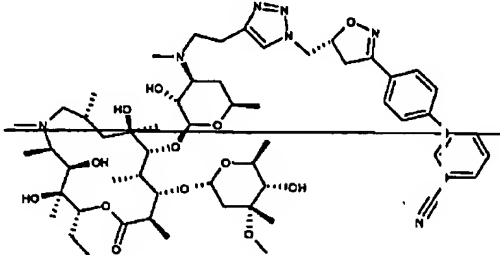
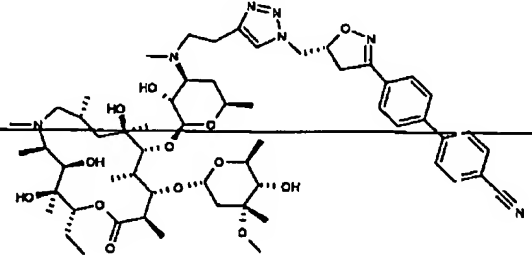
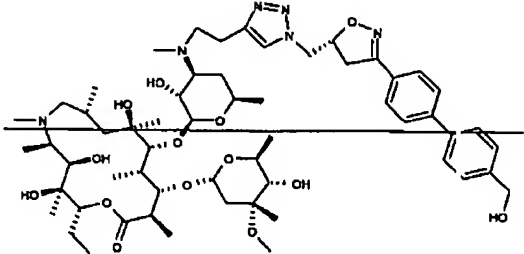
Amendment  
U.S. Serial No.: 10/671,326  
Page 34 of 53

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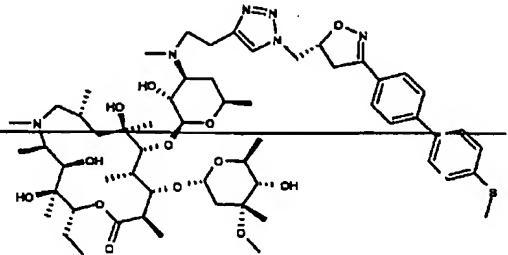
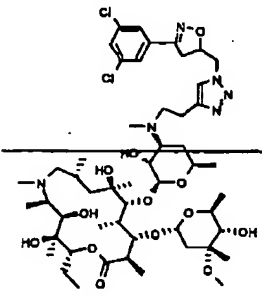
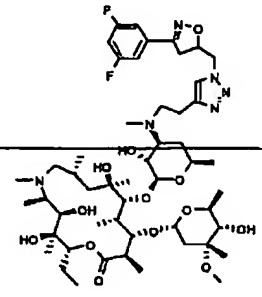
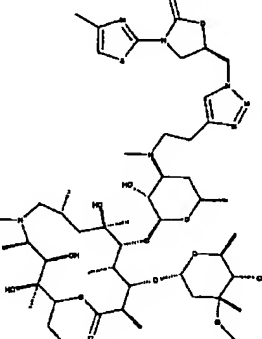
Amendment  
U.S. Serial No.: 10/671,326  
Page 35 of 53

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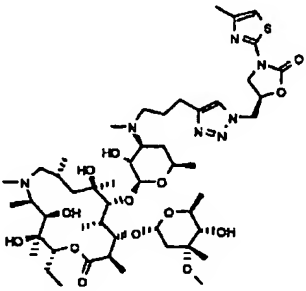
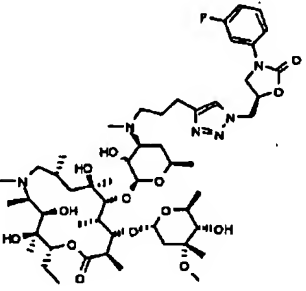
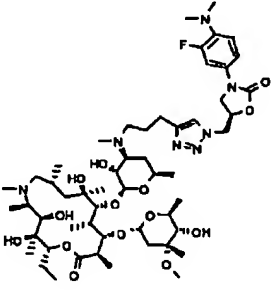
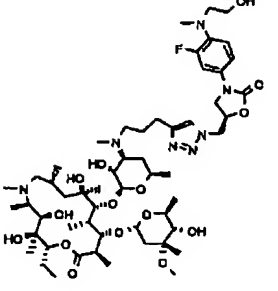
Amendment  
U.S. Serial No.: 10/671,326  
Page 36 of 53

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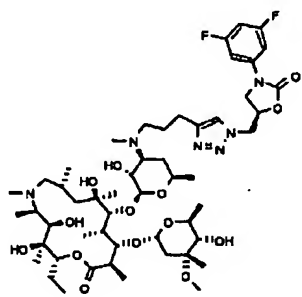
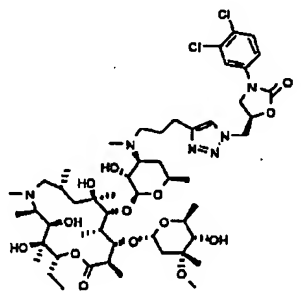
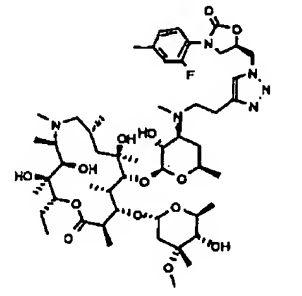
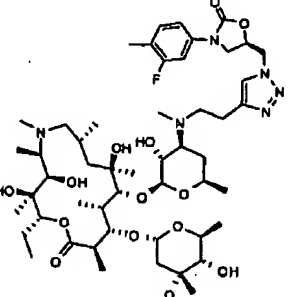
Amendment  
U.S. Serial No.: 10/671,326  
Page 37 of 53

250	
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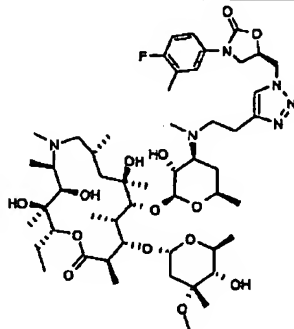
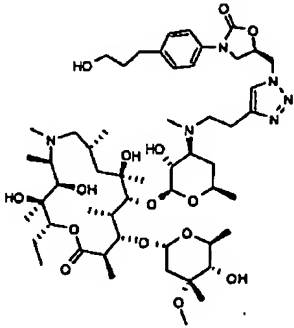
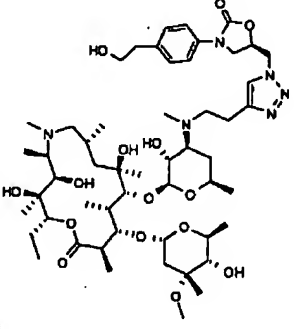
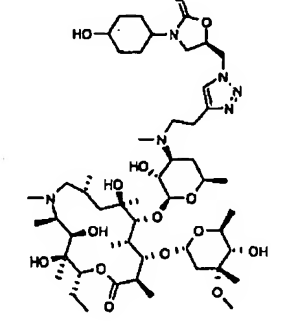
Amendment  
U.S. Serial No.: 10/671,326  
Page 38 of 53

362	
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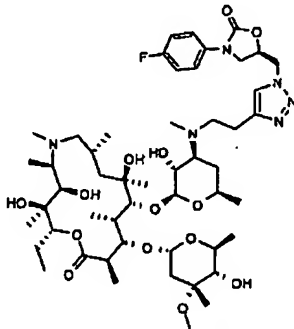
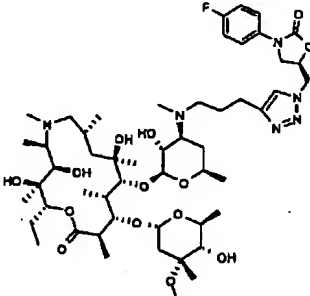
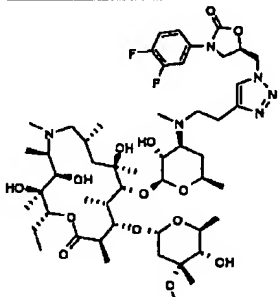
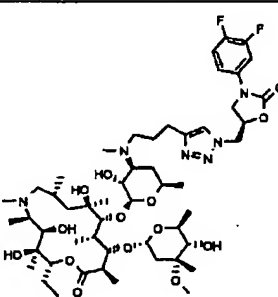
Amendment  
U.S. Serial No.: 10/671,326  
Page 39 of 53

366	
367	
368	
369	

Amendment  
U.S. Serial No.: 10/671,326  
Page 40 of 53

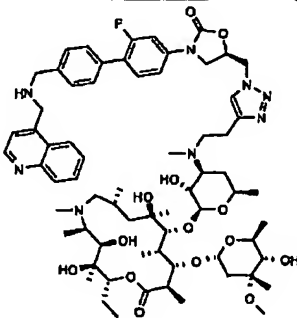
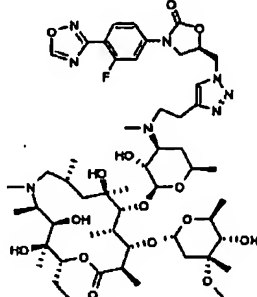
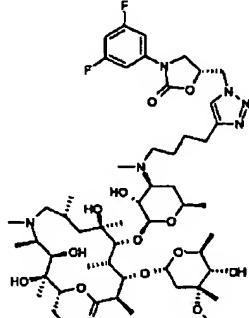
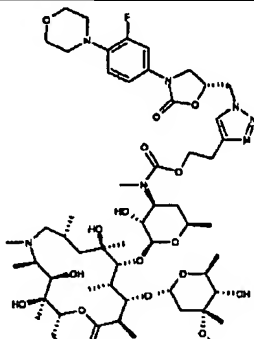
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Amendment  
U.S. Serial No.: 10/671,326  
Page 41 of 53

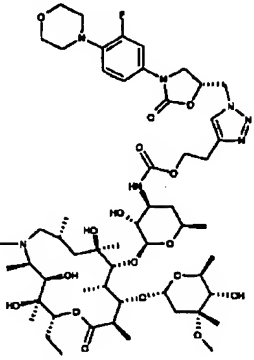
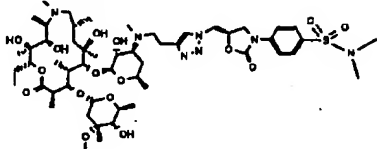
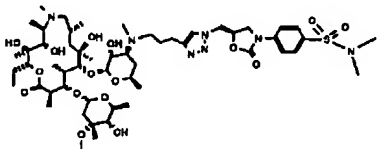
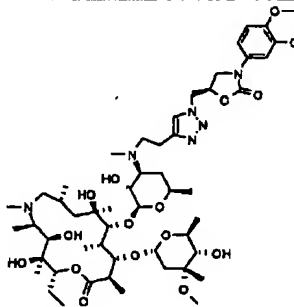
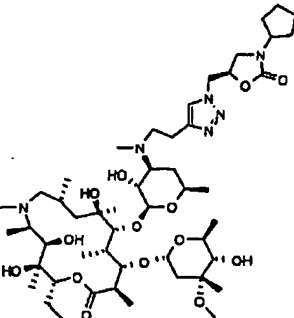
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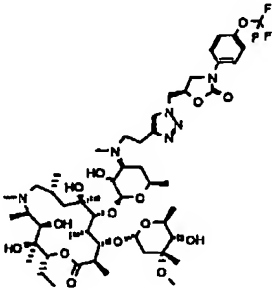
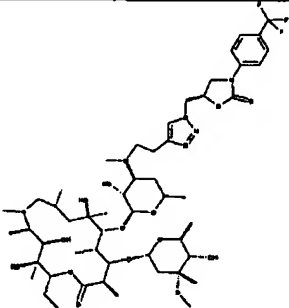
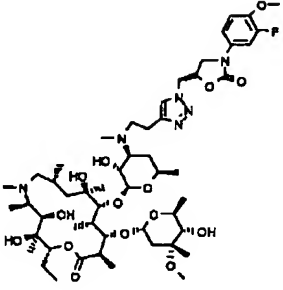
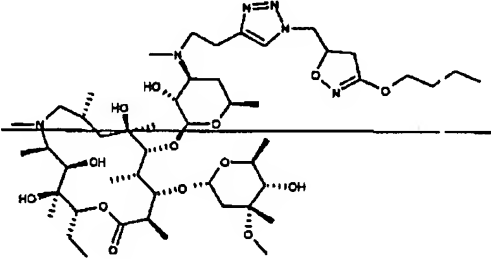
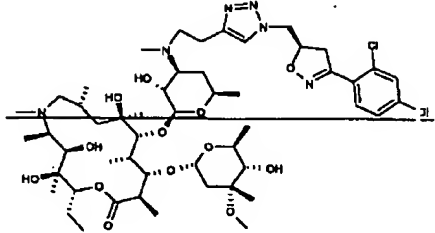
Amendment  
U.S. Serial No.: 10/671,326  
Page 42 of 53

378	
379	
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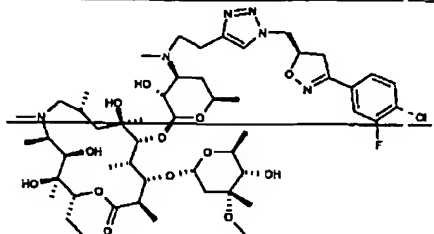
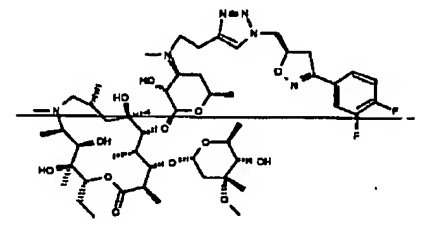
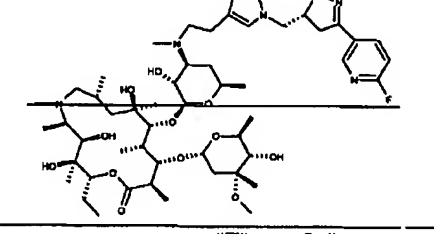
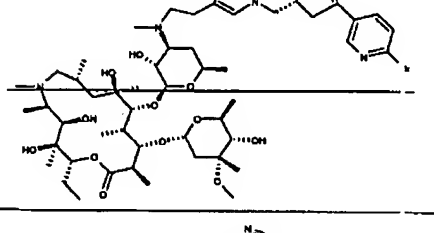
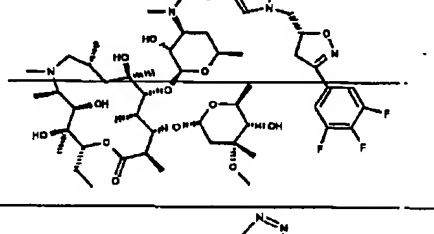
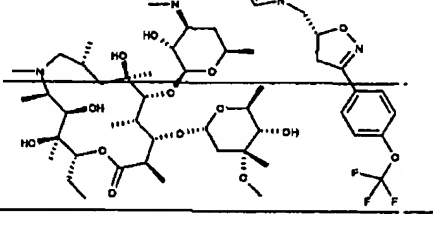
Amendment  
U.S. Serial No.: 10/671,326  
Page 43 of 53

382	
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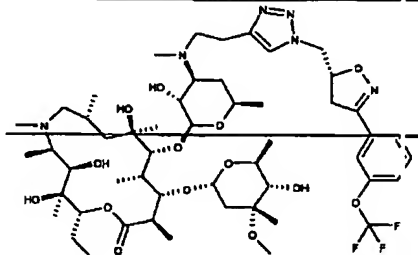
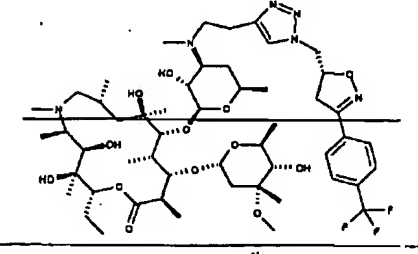
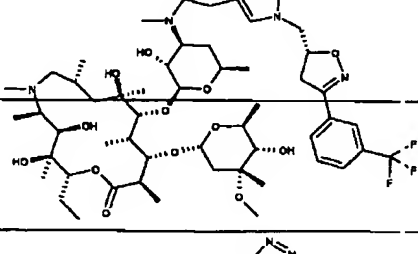
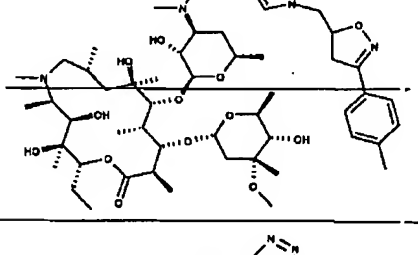
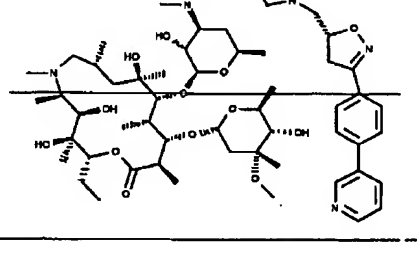
Amendment  
U.S. Serial No.: 10/671,326  
Page 44 of 53

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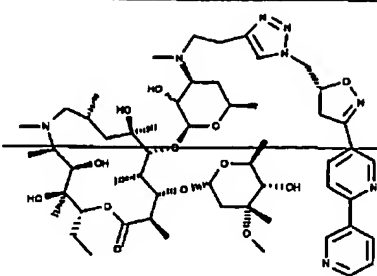
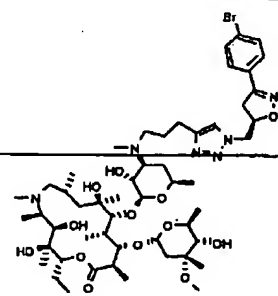
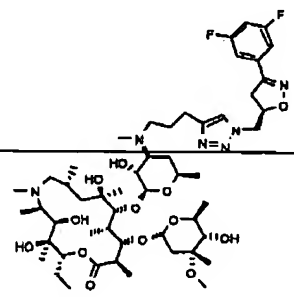
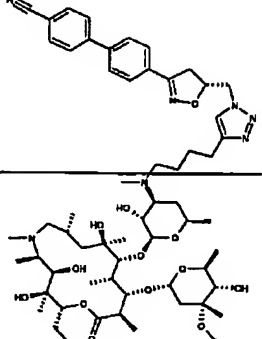
Amendment  
U.S. Serial No.: 10/671,326  
Page 45 of 53

392	
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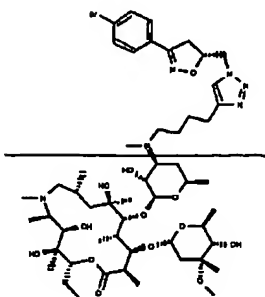
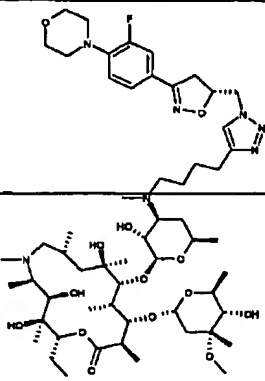
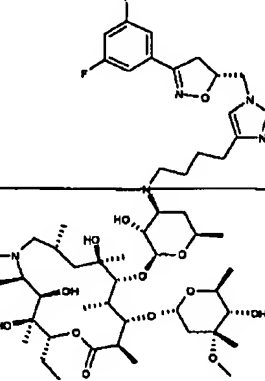
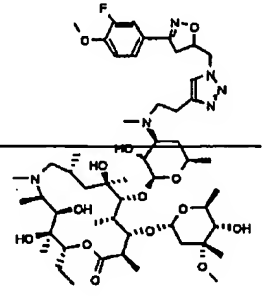
Amendment  
U.S. Serial No.: 10/671,326  
Page 46 of 53

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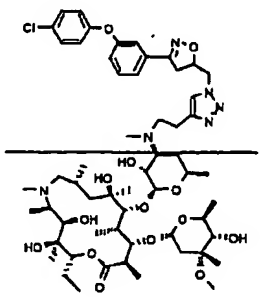
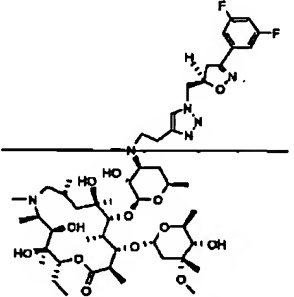
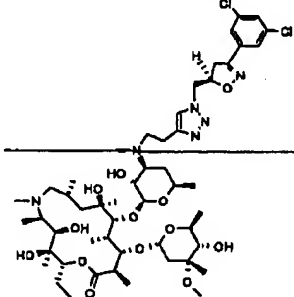
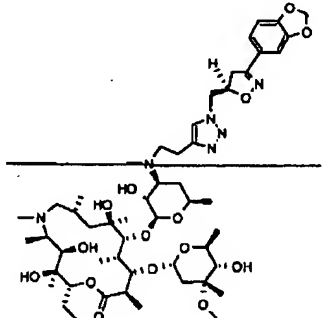
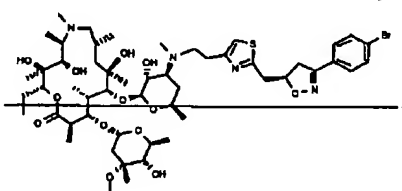
Amendment  
U.S. Serial No.: 10/671,326  
Page 47 of 53

403	
404	
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406	

Amendment  
U.S. Serial No.: 10/671,326  
Page 48 of 53

407	
408	
409	
410	

Amendment  
U.S. Serial No.: 10/671,326  
Page 49 of 53

411	
412	
413	
414	
415	



Amendment  
U.S. Serial No.: 10/671,326  
Page 50 of 53

or a pharmaceutically acceptable salt, ester, or prodrug thereof.

31. (Previously presented) A pharmaceutical composition comprising a compound according to claim 1 and a pharmaceutically acceptable carrier.

32. (Withdrawn) A method of treating a microbial infection in a mammal comprising administering to the mammal an effective amount of a compound according to claim 1.

33.- 38 (Cancelled)

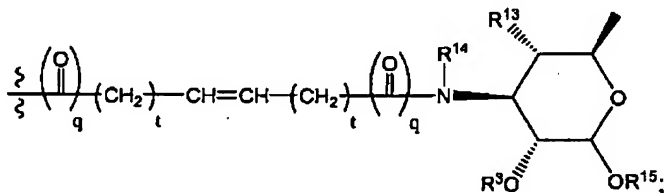
39. (Withdrawn, Currently Amended) The method according to ~~any one of claims 32-38~~ claim 32 wherein the compound is administered orally, parentally, or topically.

40.-42 (Cancelled) A method of synthesizing a compound according to claim 1.

43. (Previously presented) A pharmaceutical composition comprising a compound according to claim 30 and a pharmaceutically acceptable carrier.

44. (Cancelled)

45. (Previously presented) The compound according to claim 1, wherein G has the formula:



and R<sup>15</sup> is a macrolide.

Amendment  
U.S. Serial No.: 10/671,326  
Page 51 of 53

46. (Previously presented) A pharmaceutical composition comprising a compound according to claim 18 and a pharmaceutically acceptable carrier.

47. (Previously presented) A pharmaceutical composition comprising a compound according to claim 19 and a pharmaceutically acceptable carrier.

48. (Cancelled)

49. (Previously presented) A pharmaceutical composition comprising a compound according to claim 45 and a pharmaceutically acceptable carrier.